The Real Financial Cost of British Public Debt, 1701–2025

Historical application of CFRN-C: homogeneous ONS series 1998–2025, net reconstruction 1949–1997, and gross contractual extension 1701–1948

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Abstract

This paper applies the Net Real Financial Cost (CFRN) framework to the United Kingdom and its fiscal antecedents over the longest horizon permitted by comparable historical data. The analysis strictly distinguishes three layers of information. The main homogeneous series uses only current Office for National Statistics (ONS) data and covers 1998–2025. A second series reconstructs the net financial cost for 1949–1997 by combining official flows of interest paid and received with the historical debt stock contained in the Bank of England's A Millennium of Macroeconomic Data. Finally, a gross contractual historical extension covers 1701–1948 using interest payments, National Debt, nominal GDP and the GDP deflator reconstructed by the Bank of England and the historical sources it incorporates, principally Mitchell (1988).

The main results are relative measures: the Net Real Financial Cost Rate (TCFRN) and CFRN as a share of GDP. British history displays the symmetry of the indicator particularly clearly. Wartime and post-war inflation can turn a positive nominal burden into a strongly negative real cost, whereas the deflations that followed major wars can abruptly revalue debt in real terms. In the gross reconstruction, 1802 and 1922 produce CFRN/GDP values close to 35% and 37%, respectively, associated with extraordinary annual deflations and very large debt stocks; in the opposite direction, 1947 yields about −16% of GDP. In the net series, 1975 records a TCFRN of about −19.8% and CFRN/GDP of −7.0%. In the homogeneous ONS series, 2023 shows a TCFRN of −3.47% and CFRN/GDP of −3.28%, compared with nominal net interest equivalent to +2.47% of GDP.

The British application also provides a relevant external validation. For 1949–1980, restricting the reconstruction to years in which TCFRN is negative, the average real benefit to the government is approximately 3.78% of GDP, very close to the 3.6% of GDP "liquidation effect" estimated by Reinhart and Sbrancia for the United Kingdom over 1945–1980, despite the fact that the two methodologies are not identical. The paper concludes that jointly observing TCFRN, CFRN/GDP, debt/GDP and net interest/GDP provides a more complete reading of sovereign financing costs than nominal interest expenditure alone.

Keywords: public debt; United Kingdom; National Debt; inflation; deflation; real interest rates; CFRN; TCFRN; financial repression; index-linked gilts.

JEL codes: E31, E43, E62, H62, H63, N13, N14.

1. Introduction

Few countries make it possible to study sovereign financing over more than three centuries with even minimally defensible statistical continuity. The United Kingdom is an exception. The Bank of England's historical archive contains government interest payments from the late seventeenth century, estimates of National Debt from the 1690s, and GDP and price series that make it possible to construct real measures from the beginning of the eighteenth century. This time depth makes the British case an especially demanding test of the CFRN framework.

The objective is not to produce a single monetary figure for "real cost", but to measure two relative outcomes. The first is the effective real rate on the debt portfolio, TCFRN. The second is the macroeconomic burden of that rate, CFRN/GDP. The two are linked by a simple identity: real cost as a share of GDP equals the real price of financing multiplied by the amount of debt relative to the economy.

$$\mathrm{CFRN}_t / \mathrm{PIB}_t = \mathrm{TCFRN}_t \times (\bar{D}_t / \mathrm{PIB}_t)$$

The British case also requires particular care in defining the variable. Before 1948 there is no long, comparable series of financial interest received by government. It would therefore be incorrect to describe the entire 1701–2025 period as "net". This paper preserves the distinction: net CFRN-C where both paid and received flows exist, and CFRN-CG —a gross contractual benchmark— where only a historically defensible series of interest payments is available.

2. What the British case adds relative to the literature

2.1. Buiter (1983) and the British inflation correction

Buiter develops a broad critique: the conventional deficit may misrepresent the real change in public wealth because it omits valuation gains and losses on pre-existing stocks. For nominal debt, inflation reduces the real value of the obligation, and that economic amortisation should be recognised. His paper is not purely theoretical: it includes specific calculations for the United Kingdom for 1967–1981, based on estimates by Marcus Miller, and compares alternative inflation corrections obtained by multiplying the inflation rate by the nominal or market value of debt.

The 1981 example is particularly instructive. Buiter notes that the British financial deficit was about £7.5 billion, while alternative inflation corrections were around £11 billion. On that basis, the inflation-adjusted balance became a surplus. CFRN shares the balance-sheet intuition but isolates a different question: what was the real financial cost of the portfolio, without attempting to measure the total deficit or comprehensive public wealth.

2.2. Reinhart and Sbrancia: the closest empirical antecedent

Reinhart and Sbrancia examine how highly indebted governments after the Second World War reduced their debt burdens through negative real interest rates, financial controls and other forms of financial repression. They define "liquidation years" as years in which the real return on domestic public debt is negative and calculate the equivalent saving to government by multiplying that negative real return by the debt stock.

For the United Kingdom, their estimated "liquidation effect" is approximately 3.6% of GDP per year over 1945–1980. This is an exceptionally close antecedent to CFRN/GDP when TCFRN is negative. The conceptual difference is that Reinhart and Sbrancia study liquidation specifically, whereas CFRN symmetrically retains the whole distribution: years of negative,

zero and positive real cost. Thus, the same framework that identifies the liquidation of 1975 also measures the extraordinary real increase in cost in 1922 caused by deflation.

2.3. The specific contribution of a three-century series

The contribution of this application is not to discover that inflation and deflation change the real value of debt. That mechanism is well known. The defensible contribution is to organise existing historical data within a periodic, symmetric and replicable metric, explicitly separating net from gross data and homogeneous official series from historical reconstruction. In the literature reviewed, it is unusual to find an annual series extending over more than three centuries that jointly reports a contractual real portfolio rate, its burden as a share of GDP, debt/GDP and the nominal interest burden under the same convention.

Table 1. Relationship between this study and the main antecedents.

Antecedent	Question	Core mechanism	Difference from this application
Buiter (1983)	Public wealth and real deficit	Inflation × nominal liabilities; balance-sheet adjustment	CFRN isolates the financial cost and reports it as a rate and as a burden/GDP.
Operational deficit	Inflation-adjusted fiscal balance	Nominal interest minus inflation component	CFRN does not include the primary balance.
Effective real rate	Average real cost of the portfolio	Effective interest adjusted for inflation	Equivalent to the simple TCFRN case.
Reinhart–Sbrancia	Debt liquidation and financial repression	Negative real rate × debt; effect/GDP	CFRN is symmetric and does not require financial repression.
British CFRN	Annual real financial cost	TCFRN and CFRN/GDP with differentiated data layers	Integrates inflation and deflation, gross/net, and historical/modern series.

3. Data and series architecture

3.1. Series A: homogeneous net ONS series, 1998–2025

The main and methodologically cleanest series begins in 1998. The constraint is not the availability of interest data —official flows extend much further back— but the availability of a homogeneous annual ONS debt base from which to construct the average stock. The ONS publishes total central-government interest paid (I69W), interest received (I69N), total central-government gross debt (BKPW), nominal GDP at market prices (YBHA), and annual GDP-deflator growth (IHYS). Because BKPW provides an annual end-year observation from 1997, 1998 is the first TCFRN that can be calculated entirely from this modern data family.

This layer is the reference for interpreting the contemporary period. Its statistical revisions are those of the national accounts and UK public-finance statistics, and 2025 is included using the official vintages available in 2026.

3.2. Series B: net reconstruction, 1949–1997

For 1949–1997, official ONS flows of interest paid and received, GDP and the deflator are retained, but the debt denominator is reconstructed using the spliced historical Bank of England series. This combines the historical concept of National Debt with Central Government Gross Debt in the contemporary period. The reconstruction is sufficiently

informative for historical analysis, but it should not be confused with the statistical homogeneity of 1998–2025.

The first observation is set at 1949 because the official IHYS GDP-deflator series provides annual growth from that year. Interest received begins in 1948 and therefore does not determine the starting date.

3.3. Series C: gross contractual benchmark, 1701–1948

The maximum-depth extension begins in 1701. In A Millennium of Macroeconomic Data, the Bank of England publishes a government revenue and expenditure table with interest payments from 1688/89 and a National Debt table from the 1690s. However, nominal GDP consistent with the synthetic GB+Northern Ireland geographical boundary begins in 1700. Calculating inflation and the average debt stock requires the previous observation, so 1701 is the first date on which all components can be combined without resorting to a different deflator.

Before 1948, the same data architecture does not contain an annual series of interest received comparable to the modern one. The extension is therefore defined as CFRN-CG: gross contractual real financial cost. Its purpose is historical and directional. It is not silently spliced into the net series.

3.4. Historical sources and changing boundaries

Bank of England table A27 uses Mitchell (1988) data for 1688–1945 and ONS data from 1946 onward. Before 1946, the flows refer to the Exchequer or Consolidated Fund; from 1946 onward they reflect Central Government Net Borrowing. Table A29 provides nominal or par values of National Debt and a spliced measure that uses Central Government Gross Debt from the mid-1970s. GDP and the deflator come from the historical GDP(A) estimates.

The label “British” is used deliberately in the title because the state and its institutional boundaries change over 325 years. Variables are scaled using the constant-boundary GB+Northern Ireland GDP measure provided by the historical dataset itself. This improves economic comparability, although it does not eliminate the reconstructed nature of the early centuries.

Table 2. Empirical layers of the paper.

Layer	Coverage	Flow	Core sources	Use
A. Homogeneous ONS	1998–2025	Net	I69W, I69N, BKPW, YBHA, IHYS	Main contemporary reference
B. Reconstructed net	1949–1997	Net	ONS flows/GDP/prices + BoE debt	Post-war history; spliced stock
C. Long historical	1701–1948	Gross	BoE A27, A29, A9, A47; Mitchell	Maximum depth; no comparable interest receipts

4. Applied methodology

4.1. Average stock and stock-flow consistency

The interest flow in a given year must be related to the liability base that generates it. To avoid relying only on the closing stock, an approximation of the average stock is used:

$$\bar{D}_t = (D_{t-1} + D_t) / 2$$

In the historical series, D corresponds to the spliced National Debt or central-government gross-debt measure. In the homogeneous ONS series it corresponds to BKPW. Using annual endpoints is an approximation; monthly or quarterly data could improve the average, but at the cost of secular comparability.

4.2. Net version

$$NI_t = I_t^p - I_t^r$$

$$i_t^N = NI_t / \bar{D}_t$$

$$TCFRN_t^N = (1 + i_t^N) / (1 + \pi_t) - 1$$

$$CFRN_t^N / PIB_t = TCFRN_t^N \times (\bar{D}_t / PIB_t)$$

NI is interest paid minus interest received. This is the preferred variant wherever a comparable series of both flows is available.

4.3. Historical gross version

$$i_t^G = I_t^p / \bar{D}_t$$

$$TCFRN_t^G = (1 + i_t^G) / (1 + \pi_t) - 1$$

$$CFRN_t^G / PIB_t = TCFRN_t^G \times (\bar{D}_t / PIB_t)$$

Other things equal, the gross variant tends to produce a higher cost than the net variant because it does not subtract public financial returns. Over the 1949–2016 overlap, the two TCFRN series have an approximate correlation of 0.96 and CFRN/GDP a correlation close to 0.98. Nevertheless, gross TCFRN is on average about 2.1 percentage points higher. This comparison justifies using the gross series for historical direction and magnitude, while making its level bias explicit.

4.4. Central identity: rate × debt/GDP

The relationship between the two principal measures is algebraically elementary but economically central. By definition:

$$TCFRN_t = CFRN_t / \bar{D}_t$$

Solving for the monetary cost:

$$CFRN_t = TCFRN_t \times \bar{D}_t$$

Dividing by nominal GDP:

$$CFRN_t / PIB_t = TCFRN_t \times (\bar{D}_t / PIB_t)$$

Thus, TCFRN is the effective real price of financing and debt/GDP is the scale of exposure. An apparently moderate real rate can generate a very large burden when debt exceeds GDP, while an extremely negative real rate can have a limited macroeconomic effect when the debt stock is small.

4.5. Nominal-real diagnostic gap

$$Brecha_t = (Interés_t / PIB_t) - (CFRN_t / PIB_t)$$

A positive gap means that looking at nominal interest/GDP overstates the ex-post real cost; a negative gap means that it understates it. Deflation can generate exceptionally negative gaps because it raises the real value of principal even when nominal interest flows appear stable.

4.6. Index-linked gilts: why the United Kingdom requires a specific reading

The United Kingdom has issued index-linked gilts since 1981. On these securities, both coupons and principal are adjusted by the RPI. Under ONS methodology, the revaluation of principal is recorded on an accrual basis as interest expenditure —capital uplift— as the obligation increases, rather than only when it is paid at maturity. In March 2022, index-linked gilts represented roughly one quarter of the gilt stock, and the ONS attributed almost all of the recent increase in interest costs to RPI inflation applied to these instruments.

This treatment matters for CFRN. The accrued interest used in the modern series already incorporates the contractual increase in indexed liabilities; therefore, one should not additionally subtract a supposed full "erosion" of that portion as if it were fixed nominal debt. The aggregate Fisher transformation uses the observed effective nominal cost —including indexation— and expresses it relative to the GDP deflator. The difference between RPI and the GDP deflator remains a source of sensitivity that should be documented.

The scale of the mechanism is visible in the data. Capital uplift was approximately £26.5 billion in 2021, £69.1 billion in 2022, £36.3 billion in 2023, £20.0 billion in 2024 and £27.4 billion in 2025. This helps explain why nominal interest expenditure can rise sharply while aggregate TCFRN remains negative.

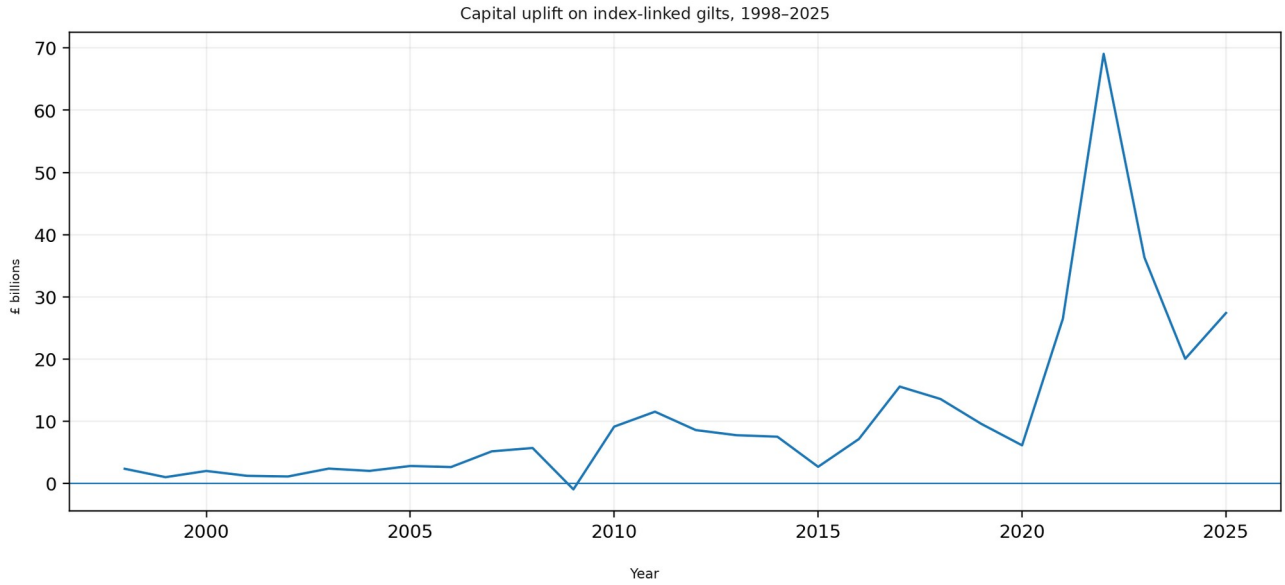

Figure 1. Capital uplift on index-linked gilts, 1998–2025. Source: ONS, series JNYY.

4.7. Contractual CFRN versus market-value CFRN

This paper calculates CFRN-C: a contractual/accounting cost based on accrued interest and nominal or redemption values of liabilities. It does not automatically include the capital gains and losses experienced by investors who buy and sell gilts in the secondary market. A fall in the market price of a gilt reduces the holder's wealth, but does not by itself reduce the contractual principal that the Treasury must repay.

A CFRN-M variant would use holding-period returns and market values, closer to the Hall-Sargent approach for the United States. The United Kingdom offers an exceptional opportunity for such an extension: the Bank of England dataset itself contains historical market-value series for the National Debt from the eighteenth century. Constructing a correct portfolio return, however, requires separating issuance, redemptions, coupons, maturities and revaluations. CFRN-M should therefore be published as a distinct exercise rather than mixed with the contractual series in this paper.

5. Historical results: 1701–1948

The maximum-depth reconstruction yields 248 annual observations between 1701 and 1948. Its most important feature is not any particular average level, but the very high sensitivity of the real burden to the interaction between prices and the debt stock. British debt was repeatedly increased by wars and then exposed to inflationary or deflationary processes that changed its real burden without an equivalent change in the nominal coupon.

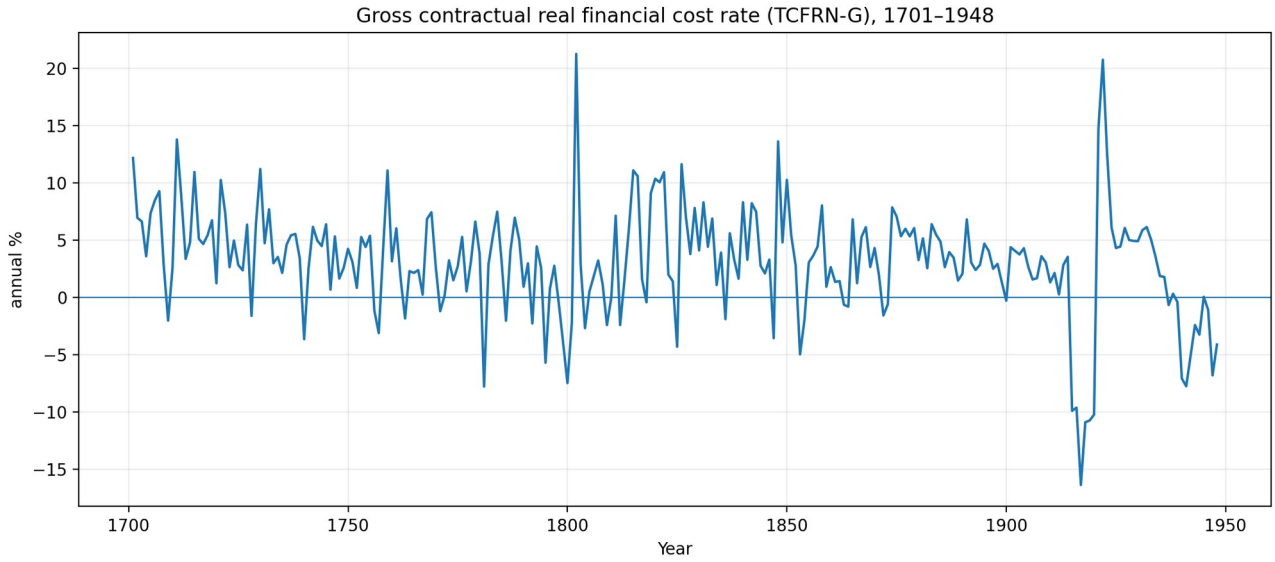

Figure 2. Gross contractual TCFRN, 1701–1948. Author's calculations from Bank of England, A Millennium of Macroeconomic Data.

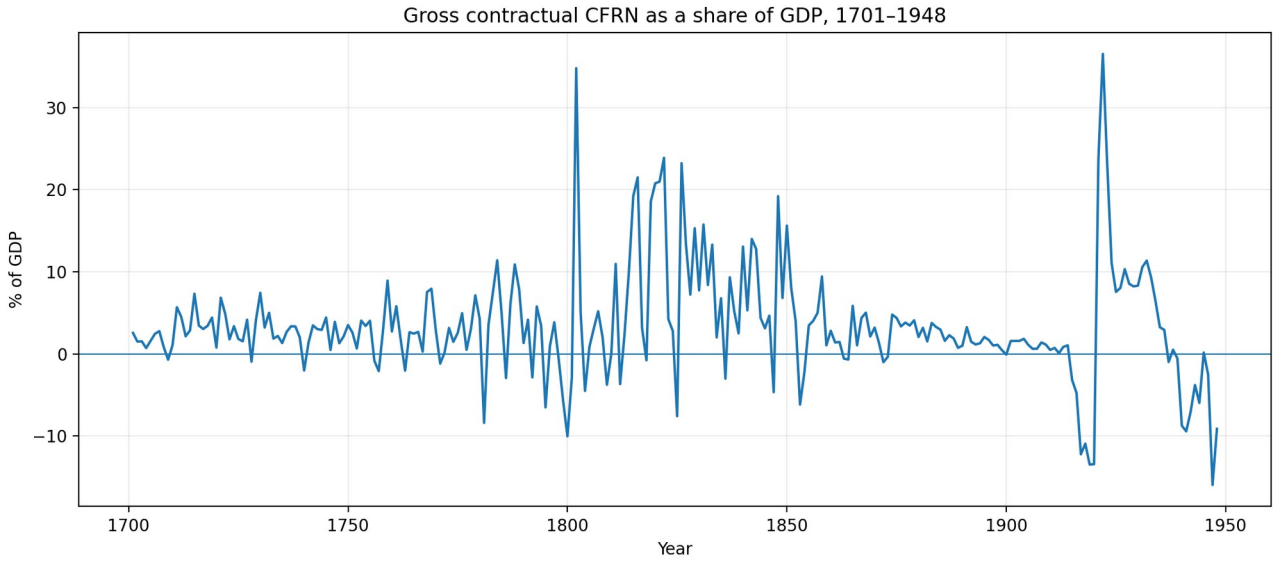

Figure 3. Gross contractual CFRN as a share of GDP, 1701–1948. Author's calculations.

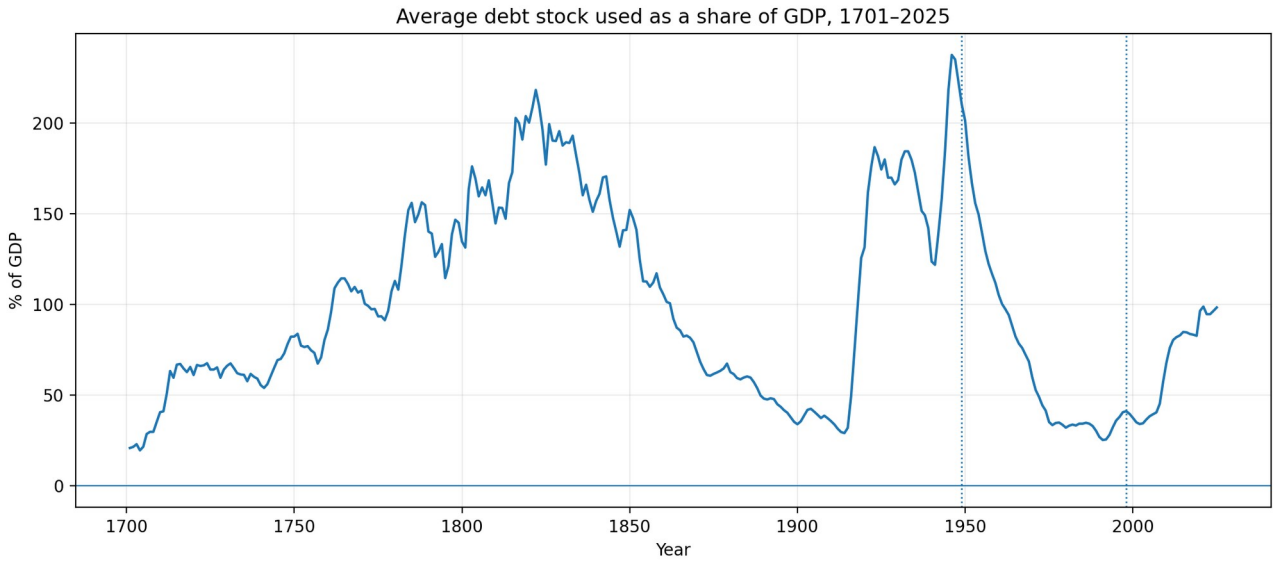

Figure 4. Average debt stock used as a share of GDP, 1701–2025. Break lines correspond to changes in the empirical layer.

5.1. The fiscal-military state and the eighteenth century

Between 1701 and 1755, average gross TCFRN is about 4.9% and CFRN/GDP about 2.7%. Average debt rises from just over 20% of GDP in the early years to substantially higher levels. During 1756–1815, a period dominated by major international conflicts, average debt/GDP exceeds 120%. Average TCFRN falls to about 2.3%, but the larger debt base keeps average CFRN/GDP near 3.0%. The rate × quantity identity shows why a rate that is not extraordinary can still become a substantial macroeconomic burden.

5.2. 1802: deflation as a sudden real revaluation of liabilities

The year 1802 provides one of the most extreme examples in the entire sample. The GDP deflator falls by about 14.4%, while the effective gross nominal rate on the debt is around 3.8%. The Fisher transformation yields a gross TCFRN of approximately +21.3%. With average debt equal to about 163% of GDP, the result is CFRN/GDP of roughly +34.8%. Gross nominal interest, by contrast, represents only about 6.2% of GDP.

This does not mean that the Treasury transferred 35% of GDP in cash to creditors that year. It means that deflation revalued an enormous nominal debt stock in real terms. The episode is the exact mirror image of inflationary “liquidation” and shows why a symmetric metric contains information that nominal interest/GDP does not.

5.3. Post-Napoleonic period and the nineteenth century

After the Napoleonic Wars, the United Kingdom combines one of the largest historical debt stocks with frequent deflationary years. In 1815 gross TCFRN is about +11.1% and CFRN/GDP +19.2%; in 1822 CFRN/GDP reaches about +23.9%. Between 1816 and 1913, average gross CFRN/GDP is around +4.7%, even though the average effective nominal rate is not particularly extreme. The persistence of a large debt stock and a price level that does not rise systematically explain much of this burden.

5.4. First World War: inflation and real debt liquidation

The First World War reverses the sign. In 1917 the deflator rises by about 24.4% and gross TCFRN falls to −16.4%; CFRN/GDP is about −12.2%. In 1919 and 1920, with debt increasing and

inflation still high, CFRN/GDP remains close to −13.5%. The government bears positive nominal interest payments, but the real value of the liability falls much faster.

5.5. 1921–1923: the strongest mirror-image test

Post-war price stabilisation abruptly produces the opposite phenomenon. The deflator falls by about 9.0% in 1921 and 13.7% in 1922. In 1922, with average debt near 176% of GDP, gross TCFRN reaches approximately +20.8% and CFRN/GDP +36.5%, the maximum in the reconstruction relative to GDP. Gross interest/GDP is about 7.4%, so the nominal indicator understates the real balance-sheet cost by roughly 29 percentage points of GDP.

This result is methodologically valuable because it prevents a one-sided interpretation of CFRN as an “inflation benefit” to government. The same formula that generates negative costs during high inflation penalises the debtor during deflation.

5.6. Second World War and the exit from war

Debt again rises above 200% of GDP during the Second World War. With positive inflation, the real cost is compressed once more. In 1947, a rise in the deflator of about 9.5% combined with average debt of around 235% of GDP produces an approximate gross TCFRN of −6.8% and CFRN/GDP of −16.0%, compared with gross interest of +4.8% of GDP. The contrast anticipates the post-war negative-real-rate regime documented by Reinhart and Sbrancia.

Table 3. Selected years and decomposition of CFRN.

Year	Episode	Inflation	Nominal rate	TCFRN	Debt/GDP	CFRN/PIB	Interest/GDP
1802	Post-war deflation	-14.41%	3.81%	21.28%	163.44%	34.79%	6.22%
1917	First World War	24.43%	4.07%	-16.36%	74.72%	-12.23%	3.04%
1922	Post-war deflation	-13.71%	4.21%	20.77%	175.90%	36.53%	7.41%
1947	Post-WWII	9.47%	2.03%	-6.79%	234.94%	-15.96%	4.78%
1951	Post-war	8.20%	1.79%	-5.92%	181.13%	-10.73%	3.24%
1975	Great Inflation	26.10%	1.15%	-19.79%	35.17%	-6.96%	0.40%
1980	Great Inflation	20.10%	5.01%	-12.56%	32.11%	-4.03%	1.61%
1997	Disinflation	0.00%	5.43%	5.43%	40.61%	2.20%	2.20%
2020	Pandemic	4.80%	1.60%	-3.05%	96.43%	-2.94%	1.55%
2021	Rebound	0.70%	2.35%	1.64%	98.80%	1.62%	2.32%
2022	Inflation shock	5.70%	3.98%	-1.63%	94.64%	-1.54%	3.76%
2023	Inflation shock	6.30%	2.61%	-3.47%	94.56%	-3.28%	2.47%
2025	Partial normalisation	3.60%	2.67%	-0.89%	98.25%	-0.88%	2.63%

6. Reconstructed net series: 1949–1997

The net reconstruction changes the level of the indicator because it subtracts interest received by government. Between 1949 and 1969, average net TCFRN is approximately −2.0% and average CFRN/GDP −2.3%. Between 1970 and 1981, with average inflation above 13%, average net TCFRN falls to about −9.8% and CFRN/GDP to −3.9%. After disinflation, 1982–1997 records average TCFRN of roughly +1.4% and average CFRN/GDP of +0.5%.

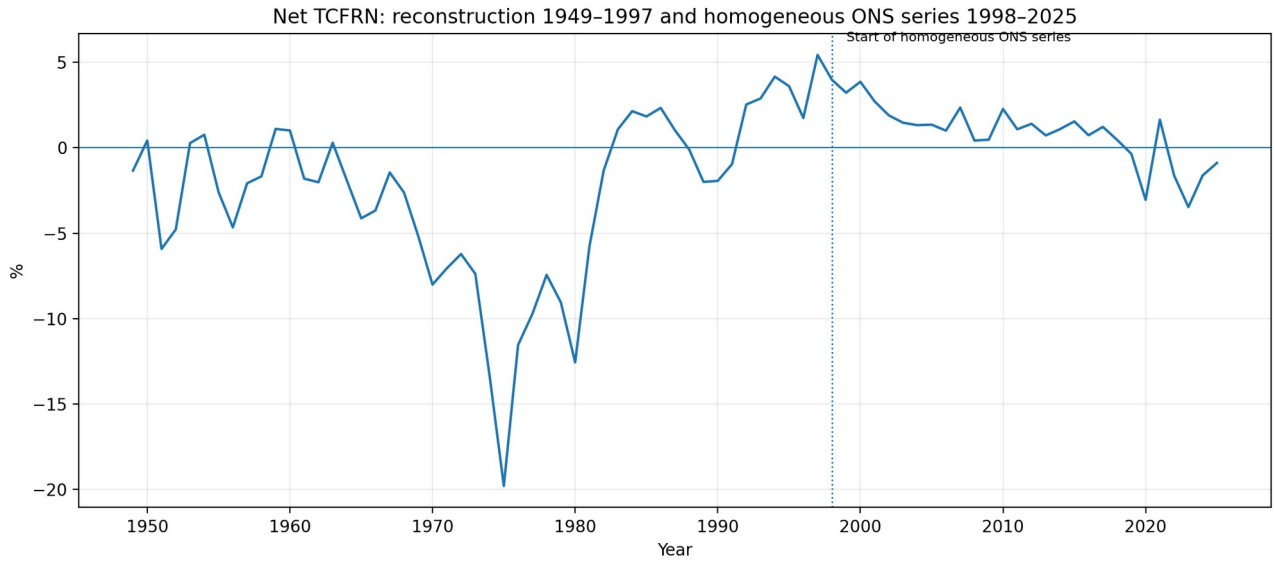

Figure 5. Net TCFRN, 1949–2025. 1949–1997 is reconstructed; 1998–2025 uses only the homogeneous ONS layer.

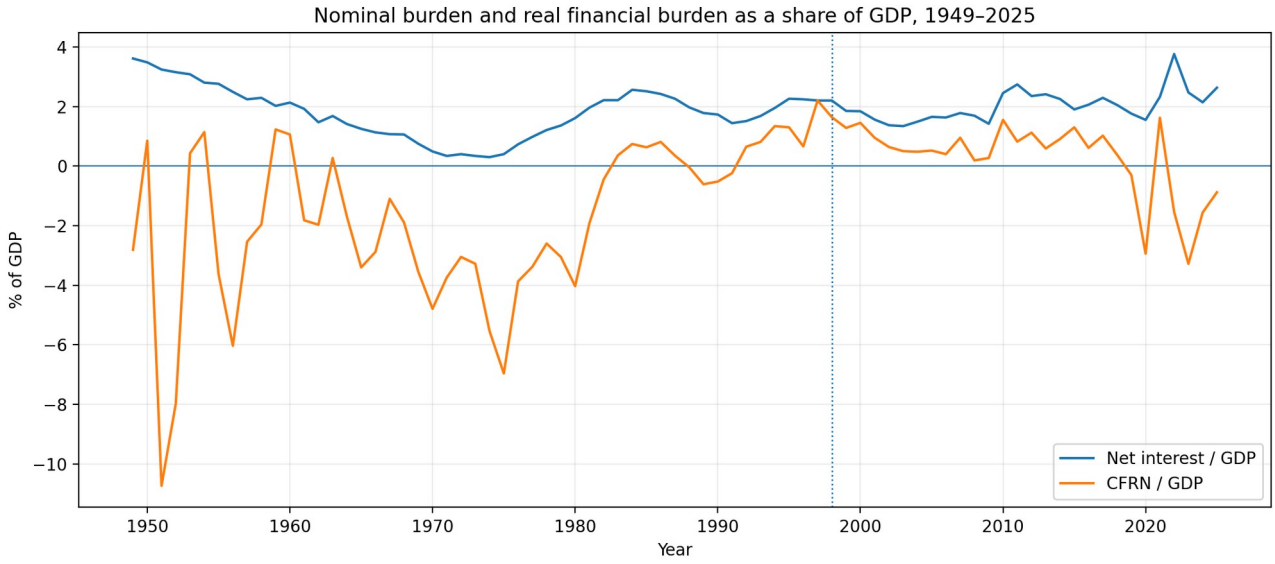

Figure 6. Net interest/GDP and CFRN/GDP, 1949–2025.

6.1. 1951: debt still enormous and inflation high

In 1951, average debt is approximately 181% of GDP. The effective net nominal interest rate is only about 1.8%, but the deflator rises by 8.2%. TCFRN is close to −5.9% and CFRN/GDP to −10.7%. Nominal net interest is +3.2% of GDP. The gap between the two readings therefore exceeds 13 percentage points of GDP.

6.2. 1975: the minimum of reconstructed net TCFRN

In 1975 the GDP deflator rises by 26.1%. The effective net nominal rate calculated on the average stock is only 1.15%, partly because financial income sharply reduces the net flow. TCFRN falls to approximately −19.8%, the lowest value in the reconstructed net series, and CFRN/GDP is close to −7.0%. Net interest/GDP, by contrast, is only +0.4%.

The comparison with Buiter is conceptually consistent: his inflation adjustments for the 1970s are enormous relative to the conventional deficit. However, Buiter works with the overall deficit and different debt concepts, whereas the present exercise isolates the financial cost alone.

6.3. Validation against Reinhart and Sbrancia

Reinhart and Sbrancia estimate an average liquidation effect for the United Kingdom of 3.6% of GDP over 1945–1980. If the present reconstruction is restricted to 1949–1980 and only to years in which net TCFRN is negative, the average real benefit to government —the absolute value of negative CFRN/GDP— is approximately 3.78% of GDP. The proximity is notable given differences in sources, deflators, institutional perimeter and the exact definition of return.

This coincidence does not establish methodological identity, but it does provide an external-validity check: CFRN reproduces, within a more general and symmetric framework, an order of magnitude already documented by an independent historical literature.

7. Homogeneous ONS series: 1998–2025

The 1998–2025 series is the contemporary core of the paper. All variables come from current ONS data families. During 1998–2007, average TCFRN is about +2.3% and CFRN/GDP +0.9%. During 2008–2019, average TCFRN declines to +0.9% and CFRN/GDP to +0.7%, while average debt/GDP almost doubles. Between 2020 and 2025, average TCFRN turns negative, around −1.5%, and average CFRN/GDP is about −1.4%, even though nominal net interest/GDP averages close to +2.5%.

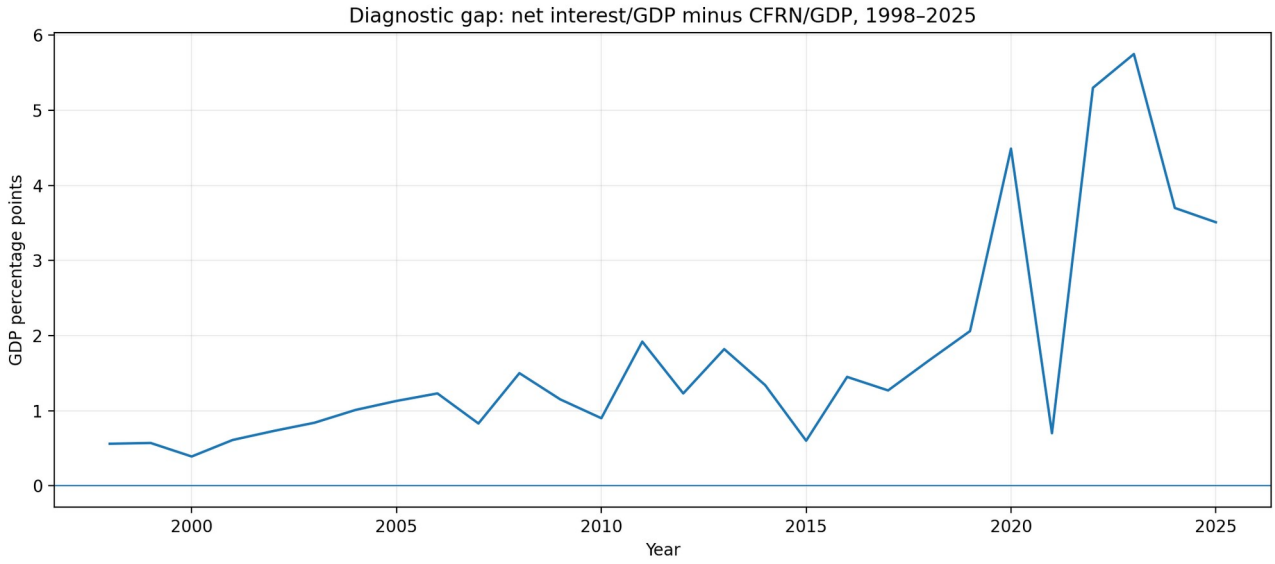

Figure 7. Diagnostic gap between net interest/GDP and CFRN/GDP, 1998–2025.

7.1. 2019–2020: first re-emergence of negative real costs

TCFRN turns slightly negative in 2019 and falls to approximately −3.05% in 2020. That year, the combination of an effective net nominal rate of about 1.6%, GDP-deflator growth of 4.8% and average debt close to 96% of GDP produces CFRN/GDP of −2.94%. Nominal net interest nevertheless amounts to +1.55% of GDP.

7.2. 2021: why the sign can change from one year to the next

In 2021, the GDP deflator rises by only 0.7% in the series used, while the effective net nominal rate increases to about 2.35%. TCFRN moves to +1.64% and CFRN/GDP to +1.62%. This change is a reminder that current CFRN is an annual ex-post measure and can be volatile when the annual deflator and the timing of indexation move differently.

7.3. 2022–2025: high nominal expenditure and negative real cost

In 2022, central-government interest paid reaches approximately £107.4 billion, of which about £69.1 billion is the capital uplift on index-linked gilts. After subtracting interest received, net interest is equivalent to about 3.76% of GDP. Yet with GDP-deflator inflation of 5.7%, TCFRN is approximately −1.63% and CFRN/GDP −1.54%.

In 2023, the contrast is even larger: nominal net interest amounts to about +2.47% of GDP, while CFRN/GDP is −3.28%. The diagnostic gap reaches roughly 5.75 percentage points of GDP. In 2024 and 2025 the real cost remains negative, although less strongly: approximately −1.56% and −0.88% of GDP, respectively.

The interpretation is not that the Treasury "made money" in budgetary terms. It continued to pay interest and refinance debt. The result means that, in purchasing-power terms measured by the GDP deflator, the effective financial cost of carrying the debt stock was below zero once the real erosion of liabilities and the observed contractual cost, including indexation, are taken into account.

8. A historical reading by regime

Table 4. Annual averages by historical regime.

Period	Regime	TCFRN	CFRN/PIB	Interest/GDP	Debt/GDP	Inflation
1701–1755	Early fiscal-military state	4.92%	2.75%	2.65%	58.45%	-0.09%
1756–1815	Eighteenth-century and Napoleonic wars	2.29%	3.05%	4.39%	126.53%	1.34%
1816–1913	Post-Napoleonic and Victorian era	3.85%	4.66%	3.66%	105.78%	-0.31%
1914–1920	First World War	-9.16%	-8.14%	2.99%	77.56%	14.43%
1921–1939	Interwar period and deflation	5.66%	9.91%	6.20%	170.47%	-1.74%
1940–1948	Second World War and exit	-4.16%	-6.94%	3.88%	182.19%	6.67%
1949–1969	Post-war	-2.00%	-2.33%	2.14%	121.26%	3.85%
1970–1981	Great Inflation	-9.83%	-3.85%	0.84%	40.42%	13.72%
1982–1997	Disinflation	1.40%	0.50%	2.06%	32.56%	4.89%
1998–2007	Pre-crisis ONS	2.31%	0.88%	1.67%	37.70%	2.06%
2008–2019	Crisis and low rates	0.92%	0.71%	2.11%	75.93%	1.90%
2020–2025	Pandemic and inflation	-1.50%	-1.43%	2.48%	96.52%	4.17%

The table summarises a long-run conclusion: real cost does not mechanically track nominal interest expenditure. Wars generally raise debt and, when accompanied by inflation, can temporarily reduce the real cost; subsequent deflationary stabilisations can do exactly the opposite. In the late twentieth century, falling debt/GDP limits the macroeconomic magnitude even when TCFRN is extreme; in the twenty-first century, high debt once again amplifies relatively small differences between nominal rates and inflation.

9. Which conclusions are known and what this application adds

At least four propositions are already established: inflation erodes nominal liabilities; deflation raises their real value; the United Kingdom operated in a post-war environment of negative real rates and financial repression; and index-linked gilts pass part of inflation into principal and accrued interest. This paper does not claim novelty for those mechanisms.

The contribution lies in measuring them jointly. First, the paper reports a symmetric metric that does not stop when the real rate becomes positive and therefore places 1922, 1975 and 2023 within the same framework. Second, it explicitly separates real price —TCFRN— from scale —debt/GDP— through an identity that explains why episodes with similar inflation can have very different macroeconomic effects. Third, it constructs a layered data architecture that avoids presenting 1701 and 2025 as though they came from a single homogeneous statistic. Fourth, the comparison with Reinhart-Sbrancia shows that the order of magnitude of the liquidation effect emerges independently under CFRN.

Perhaps the most striking conclusion is the importance of deflation. The liquidation literature usually focuses on years of negative real interest rates. The British series shows that the real revaluation of debt during deflations can be even larger in absolute terms than inflationary liquidation. In 1922, estimated gross CFRN/GDP greatly exceeds nominal interest expenditure and reaches an exceptional magnitude because debt was close to 176% of GDP while deflation was in double digits.

10. Limitations and robustness checks

First, the 1701–1948 series is gross. Government interest receipts cannot be deducted on a comparable basis, so its level should not be mechanically compared with modern net TCFRN. The later overlap nevertheless shows a very high correlation between the two variants.

Second, historical stocks are spliced measures of National Debt and, later, Central Government Gross Debt. The concepts of public sector, central government and consolidated debt change over time. The reconstruction prioritises historical continuity over institutional purity.

Third, in some periods the historical matching combines fiscal-year flows with annual GDP and deflator data. This introduces a timing approximation. A high-resolution version could redistribute flows on a calendar basis, but would lose depth and become more dependent on assumptions.

Fourth, RPI-linked debt has existed since 1981. The ONS records capital uplift as accrued interest and debt at redemption value, which prevents the creditor's inflation protection from being ignored; nevertheless, RPI and the GDP deflator are not the same price index. Sensitivity analyses using CPI, RPI and, where possible, a decomposition by gilt type should be reported.

Fifth, CFRN-C is not a market return. Capital losses to holders caused by higher interest rates do not automatically reduce the Treasury's face-value obligation. A CFRN-M extension must be constructed separately from market values and holding-period returns.

Sixth, the magnitude of CFRN/GDP during severe deflations is an annual balance-sheet revaluation, not a cash outflow. Its interpretation always requires a distinction between budgetary cost and real economic cost.

11. Conclusions

The United Kingdom makes it possible to extend the historical application of CFRN back to 1701, much further than in most modern economies. That advantage requires abandoning the fiction of a single homogeneous series. The paper separates a homogeneous net ONS series for 1998–2025, a net reconstruction for 1949–1997 and a gross contractual benchmark for 1701–1948.

Three centuries of evidence reinforce the framework's central interpretation. Nominal interest expenditure is indispensable for analysing cash flow and budgets, but does not by itself determine the real financial cost. That cost depends on the portfolio's effective rate, inflation or deflation, and the size of the debt stock. The identity CFRN/GDP = TCFRN × debt/GDP provides the simplest decomposition of this relationship.

The historical extremes show the symmetry. Inflation in 1917, 1947 or 1975 sharply reduces the real cost of liabilities; deflation in 1802 or 1922 revalues them dramatically. In the recent period, the large nominal increase in British interest expenditure in 2022–2025 does not necessarily imply a real cost of the same sign: TCFRN and CFRN/GDP remain negative in those years except for the brief sign reversal in 2021.

The natural next step is twofold. First, the same architecture can be applied to other countries with long series to compare financing regimes. Second, a market-value CFRN-M variant can be constructed for the United Kingdom using historical National Debt market values available from the eighteenth century. The coexistence of CFRN-C and CFRN-M would allow a rigorous distinction between the sovereign's contractual cost and the economic return earned by the holder.

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Appendix A. Gross contractual historical series, 1701–1948

Percentage values. TCFRN-G and CFRN-G/GDP are the author's calculations. The interest/GDP column uses gross interest payments. Source: Bank of England, A Millennium of Macroeconomic Data, tables A27, A29, A9 and A47.

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1701	-4.85	6.75	12.19	20.9	2.55	1.41
1702	-0.18	6.76	6.96	21.5	1.50	1.45
1703	-0.91	5.67	6.65	23.0	1.53	1.31
1704	1.82	5.49	3.61	19.6	0.71	1.08
1705	-1.88	5.35	7.37	21.6	1.59	1.16
1706	-2.86	5.41	8.51	28.6	2.44	1.55
1707	-1.47	7.69	9.29	29.8	2.77	2.29
1708	3.33	6.20	2.78	29.8	0.83	1.85
1709	9.13	6.93	-2.01	35.3	-0.71	2.45
1710	3.13	5.78	2.57	40.6	1.04	2.35
1711	-7.18	5.64	13.81	41.1	5.68	2.32
1712	-2.37	6.23	8.82	50.9	4.49	3.17
1713	2.69	6.16	3.38	63.3	2.14	3.90
1714	1.20	6.08	4.82	59.6	2.87	3.62
1715	-4.12	6.40	10.97	66.8	7.33	4.28
1716	0.40	5.55	5.13	67.2	3.45	3.73
1717	1.37	6.11	4.68	64.7	3.03	3.95
1718	-0.49	4.93	5.45	62.7	3.42	3.09
1719	-1.89	4.73	6.75	65.5	4.42	3.10
1720	3.47	4.77	1.25	61.1	0.77	2.92
1721	-4.22	5.61	10.27	66.6	6.84	3.73
1722	-2.07	5.19	7.42	66.1	4.90	3.43
1723	2.28	5.01	2.66	66.4	1.77	3.32
1724	-0.01	4.97	4.98	67.6	3.37	3.36
1725	1.94	4.84	2.84	64.1	1.82	3.10
1726	2.27	4.70	2.38	64.1	1.53	3.01

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1727	-1.40	4.88	6.37	65.3	4.16	3.19
1728	5.72	4.03	-1.60	59.6	-0.95	2.40
1729	-2.14	4.06	6.34	64.1	4.06	2.60
1730	-6.41	4.11	11.23	66.2	7.44	2.72
1731	-0.94	3.77	4.75	67.5	3.21	2.55
1732	-3.46	3.99	7.71	64.9	5.01	2.59
1733	0.84	3.87	3.00	62.1	1.86	2.40
1734	0.34	3.91	3.55	61.4	2.18	2.40
1735	1.93	4.13	2.16	61.2	1.32	2.53
1736	-0.69	3.91	4.63	57.7	2.67	2.26
1737	-1.44	3.93	5.44	61.7	3.36	2.42
1738	-1.46	4.01	5.56	60.1	3.34	2.41
1739	0.64	4.09	3.42	59.1	2.02	2.41
1740	8.02	4.10	-3.63	55.5	-2.02	2.27
1741	1.26	3.84	2.55	54.0	1.38	2.08
1742	-2.33	3.71	6.18	56.1	3.47	2.08
1743	-1.19	3.73	4.98	60.6	3.02	2.26
1744	-0.74	3.73	4.50	65.0	2.92	2.42
1745	-2.54	3.69	6.40	69.3	4.43	2.56
1746	2.75	3.45	0.69	70.0	0.48	2.42
1747	-1.49	3.77	5.34	73.0	3.90	2.75
1748	1.93	3.63	1.66	78.1	1.30	2.83
1749	1.05	3.68	2.59	82.2	2.13	3.02
1750	-0.38	3.87	4.26	82.3	3.51	3.19
1751	0.50	3.63	3.11	83.8	2.60	3.04
1752	2.65	3.53	0.85	77.3	0.66	2.73
1753	-1.73	3.47	5.29	76.5	4.05	2.66
1754	-0.81	3.58	4.42	77.0	3.40	2.75
1755	-1.79	3.52	5.40	74.7	4.03	2.63
1756	4.79	3.60	-1.13	73.3	-0.83	2.64

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1757	6.78	3.47	-3.10	67.4	-2.09	2.34
1758	-0.80	3.40	4.23	70.8	3.00	2.41
1759	-6.66	3.71	11.10	80.3	8.92	2.98
1760	0.55	3.74	3.17	86.1	2.73	3.22
1761	-2.10	3.81	6.05	96.0	5.80	3.66
1762	1.99	3.62	1.60	108.9	1.74	3.94
1763	5.41	3.49	-1.82	112.0	-2.04	3.91
1764	0.99	3.32	2.31	114.3	2.64	3.80
1765	1.06	3.25	2.16	114.3	2.47	3.71
1766	1.04	3.46	2.40	111.3	2.67	3.85
1767	3.12	3.39	0.26	107.2	0.28	3.64
1768	-3.31	3.33	6.87	109.6	7.53	3.65
1769	-3.79	3.37	7.45	106.5	7.93	3.59
1770	0.72	3.41	2.67	107.6	2.87	3.67
1771	4.52	3.29	-1.18	100.4	-1.18	3.30
1772	3.21	3.38	0.17	99.2	0.17	3.35
1773	0.06	3.31	3.25	97.3	3.16	3.22
1774	1.79	3.32	1.51	97.5	1.47	3.24
1775	0.65	3.41	2.74	93.4	2.56	3.18
1776	-1.90	3.30	5.30	93.4	4.95	3.08
1777	2.69	3.26	0.55	91.3	0.50	2.98
1778	0.17	3.30	3.13	96.5	3.02	3.18
1779	-3.01	3.43	6.64	107.3	7.13	3.69
1780	-0.41	3.36	3.79	112.9	4.28	3.79
1781	12.21	3.49	-7.77	108.1	-8.40	3.78
1782	0.44	3.34	2.89	121.9	3.52	4.08
1783	-1.96	3.30	5.37	138.5	7.43	4.57
1784	-3.86	3.35	7.50	151.9	11.39	5.09
1785	0.32	3.47	3.13	155.9	4.88	5.40
1786	5.70	3.57	-2.02	145.3	-2.94	5.19

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1787	-0.57	3.47	4.06	149.6	6.07	5.19
1788	-3.26	3.48	6.97	156.2	10.89	5.44
1789	-1.49	3.49	5.06	154.7	7.83	5.40
1790	2.52	3.49	0.95	140.1	1.33	4.90
1791	0.48	3.49	2.99	139.0	4.16	4.85
1792	5.85	3.45	-2.26	126.2	-2.86	4.36
1793	-1.03	3.39	4.47	129.0	5.77	4.38
1794	0.99	3.62	2.60	133.2	3.47	4.83
1795	9.96	3.71	-5.69	114.5	-6.52	4.24
1796	2.89	3.69	0.77	121.3	0.94	4.48
1797	0.98	3.78	2.78	138.5	3.84	5.23
1798	4.42	3.98	-0.42	146.6	-0.62	5.84
1799	7.85	3.64	-3.90	145.0	-5.66	5.28
1800	8.85	0.73	-7.46	134.6	-10.04	0.98
1801	5.77	3.44	-2.20	131.3	-2.88	4.52
1802	-14.41	3.81	21.28	163.4	34.79	6.22
1803	0.74	3.67	2.91	176.0	5.12	6.47
1804	6.48	3.64	-2.67	169.3	-4.51	6.17
1805	3.00	3.54	0.52	159.5	0.84	5.65
1806	1.74	3.65	1.88	164.4	3.09	6.00
1807	0.39	3.65	3.24	160.1	5.19	5.84
1808	2.41	3.65	1.21	168.3	2.04	6.13
1809	6.02	3.48	-2.40	156.6	-3.76	5.44
1810	3.54	3.58	0.04	144.6	0.06	5.18
1811	-3.35	3.56	7.15	153.3	10.96	5.46
1812	6.08	3.53	-2.40	153.1	-3.68	5.41
1813	2.05	3.66	1.58	147.2	2.33	5.39
1814	-2.36	3.50	6.00	166.8	10.02	5.84
1815	-6.76	3.60	11.11	172.8	19.21	6.22
1816	-6.23	3.71	10.60	202.7	21.49	7.52

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1817	2.08	3.70	1.59	199.8	3.17	7.40
1818	4.00	3.57	-0.41	190.8	-0.78	6.82
1819	-5.09	3.56	9.12	203.7	18.57	7.26
1820	-6.19	3.55	10.38	200.1	20.77	7.11
1821	-5.82	3.66	10.07	208.4	20.98	7.64
1822	-6.56	3.66	10.95	218.1	23.88	7.99
1823	1.55	3.59	2.01	209.3	4.22	7.53
1824	1.96	3.41	1.42	196.3	2.79	6.69
1825	8.07	3.44	-4.29	177.0	-7.59	6.09
1826	-7.41	3.37	11.65	199.3	23.22	6.72
1827	-3.40	3.40	7.03	190.2	13.38	6.46
1828	-0.36	3.42	3.80	190.0	7.22	6.50
1829	-4.08	3.43	7.83	195.4	15.30	6.70
1830	-0.68	3.42	4.12	187.5	7.73	6.41
1831	-4.49	3.46	8.32	189.3	15.75	6.54
1832	-1.02	3.37	4.44	188.9	8.39	6.37
1833	-3.29	3.38	6.90	192.9	13.30	6.51
1834	2.27	3.40	1.10	182.3	2.01	6.20
1835	-0.50	3.41	3.93	172.3	6.77	5.87
1836	5.39	3.40	-1.88	160.1	-3.01	5.45
1837	-2.03	3.48	5.62	165.9	9.33	5.77
1838	0.20	3.51	3.31	157.5	5.21	5.53
1839	1.81	3.50	1.65	151.0	2.50	5.28
1840	-4.43	3.53	8.33	157.0	13.07	5.53
1841	0.21	3.52	3.30	160.9	5.31	5.66
1842	-4.35	3.54	8.24	169.9	14.00	6.01
1843	-3.69	3.52	7.49	170.5	12.77	6.01
1844	0.70	3.51	2.79	157.4	4.39	5.52
1845	1.51	3.66	2.11	147.7	3.12	5.40
1846	0.12	3.44	3.32	140.0	4.65	4.81

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1847	7.21	3.42	-3.54	131.8	-4.66	4.50
1848	-8.99	3.43	13.64	140.8	19.21	4.82
1849	-1.31	3.45	4.83	141.0	6.81	4.87
1850	-6.21	3.43	10.28	152.0	15.62	5.22
1851	-1.88	3.42	5.40	147.5	7.97	5.05
1852	0.59	3.44	2.83	141.1	3.99	4.85
1853	8.84	3.44	-4.96	124.5	-6.17	4.29
1854	5.55	3.48	-1.97	112.7	-2.22	3.92
1855	0.38	3.48	3.08	112.6	3.47	3.91
1856	-0.22	3.44	3.66	109.7	4.02	3.77
1857	-0.97	3.45	4.46	112.0	5.00	3.86
1858	-4.26	3.44	8.05	117.1	9.43	4.03
1859	2.49	3.46	0.95	109.3	1.04	3.78
1860	0.79	3.48	2.66	105.6	2.81	3.67
1861	1.80	3.20	1.37	101.4	1.39	3.24
1862	1.73	3.20	1.44	100.6	1.45	3.22
1863	3.84	3.19	-0.63	92.1	-0.58	2.94
1864	4.02	3.20	-0.79	87.2	-0.69	2.79
1865	-3.36	3.24	6.83	85.7	5.85	2.78
1866	1.96	3.24	1.26	82.3	1.04	2.67
1867	-1.94	3.25	5.29	82.8	4.38	2.69
1868	-2.66	3.33	6.15	81.6	5.02	2.71
1869	0.63	3.33	2.68	79.1	2.12	2.64
1870	-0.89	3.41	4.33	73.8	3.20	2.51
1871	1.45	3.39	1.91	68.4	1.31	2.32
1872	5.05	3.41	-1.56	64.4	-1.01	2.20
1873	4.04	3.43	-0.58	61.1	-0.35	2.10
1874	-4.11	3.45	7.88	60.7	4.78	2.09
1875	-3.33	3.52	7.09	61.7	4.38	2.18
1876	-1.73	3.54	5.36	62.5	3.35	2.21

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1877	-2.31	3.56	6.01	63.4	3.81	2.26
1878	-1.67	3.59	5.35	64.7	3.46	2.32
1879	-2.30	3.63	6.07	67.4	4.09	2.45
1880	0.36	3.64	3.28	62.7	2.06	2.29
1881	-1.30	3.80	5.17	61.6	3.18	2.34
1882	1.26	3.86	2.57	59.4	1.52	2.29
1883	-2.36	3.90	6.41	58.7	3.76	2.29
1884	-1.53	3.88	5.50	59.7	3.28	2.32
1885	-0.94	3.90	4.89	60.3	2.95	2.36
1886	0.50	3.17	2.66	59.7	1.59	1.89
1887	-0.17	3.79	3.97	57.2	2.27	2.17
1888	0.05	3.54	3.49	53.9	1.88	1.91
1889	2.06	3.58	1.49	49.8	0.74	1.78
1890	1.42	3.53	2.08	48.1	1.00	1.70
1891	-3.13	3.48	6.83	47.6	3.25	1.66
1892	0.41	3.48	3.06	48.3	1.48	1.68
1893	1.05	3.49	2.41	47.8	1.15	1.67
1894	0.61	3.50	2.86	45.0	1.29	1.57
1895	-1.14	3.51	4.71	43.6	2.06	1.53
1896	-0.58	3.48	4.08	41.7	1.70	1.45
1897	1.09	3.64	2.52	40.3	1.02	1.47
1898	0.72	3.68	2.94	37.8	1.11	1.39
1899	2.36	3.70	1.31	35.3	0.46	1.31
1900	3.92	3.64	-0.27	34.0	-0.09	1.24
1901	-1.39	2.95	4.40	35.6	1.56	1.05
1902	-1.09	2.94	4.08	38.8	1.58	1.14
1903	-0.29	3.47	3.77	41.9	1.58	1.45
1904	-1.06	3.20	4.31	42.5	1.83	1.36
1905	0.41	3.12	2.70	40.9	1.10	1.28
1906	1.50	3.10	1.58	39.2	0.62	1.22

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1907	1.15	2.87	1.70	37.4	0.63	1.07
1908	-0.84	2.74	3.61	38.7	1.39	1.06
1909	-0.23	2.84	3.07	37.3	1.14	1.06
1910	1.39	2.74	1.33	35.7	0.48	0.98
1911	0.56	2.73	2.15	33.9	0.73	0.92
1912	2.48	2.77	0.28	31.5	0.09	0.87
1913	-0.06	2.78	2.84	29.7	0.85	0.83
1914	-0.80	2.72	3.56	29.1	1.04	0.79
1915	13.56	2.32	-9.89	32.0	-3.17	0.74
1916	14.60	3.59	-9.61	49.6	-4.76	1.78
1917	24.43	4.07	-16.36	74.7	-12.23	3.04
1918	16.47	3.80	-10.88	100.5	-10.93	3.82
1919	16.53	4.03	-10.73	125.6	-13.47	5.06
1920	16.20	4.32	-10.22	131.4	-13.43	5.68
1921	-9.02	4.42	14.77	161.5	23.85	7.13
1922	-13.71	4.21	20.77	175.9	36.53	7.41
1923	-7.31	4.17	12.38	186.6	23.10	7.78
1924	-2.01	3.96	6.09	181.7	11.06	7.19
1925	-0.26	4.06	4.33	174.3	7.55	7.08
1926	-0.42	4.03	4.46	179.8	8.03	7.24
1927	-1.80	4.17	6.08	169.8	10.32	7.08
1928	-0.88	4.11	5.03	169.8	8.54	6.97
1929	-0.82	4.08	4.95	166.1	8.22	6.79
1930	-0.85	4.04	4.93	168.5	8.31	6.81
1931	-1.91	3.86	5.88	179.7	10.57	6.94
1932	-2.23	3.80	6.16	184.3	11.36	7.01
1933	-1.35	3.64	5.06	184.3	9.32	6.71
1934	-0.83	2.72	3.58	179.7	6.43	4.89
1935	0.76	2.66	1.88	172.5	3.25	4.58
1936	0.86	2.68	1.81	161.9	2.92	4.33

Year	Inflation	Gross nominal rate	TCFRN-G	Debt/GDP	CFRN-G/PIB	Gross interest/GDP
1937	3.34	2.67	-0.65	151.5	-0.98	4.04
1938	2.34	2.69	0.34	149.1	0.51	4.02
1939	3.04	2.64	-0.39	142.0	-0.56	3.74
1940	10.42	2.63	-7.06	123.6	-8.73	3.25
1941	10.84	2.26	-7.74	121.8	-9.43	2.76
1942	7.64	2.16	-5.09	138.9	-7.07	3.00
1943	4.64	2.12	-2.40	158.1	-3.80	3.36
1944	5.51	2.10	-3.24	184.4	-5.97	3.87
1945	1.98	2.06	0.07	218.0	0.16	4.49
1946	3.15	2.05	-1.07	237.4	-2.53	4.87
1947	9.47	2.03	-6.79	234.9	-15.96	4.78
1948	6.41	2.04	-4.10	222.5	-9.13	4.55

Appendix B. Reconstructed net series, 1949–1997

Percentage values. Interest flows, GDP and the deflator are from ONS; the debt stock is spliced with Bank of England data up to the start of BKPW.

Year	Inflation	Net nominal rate	TCFRN-N	Debt/GDP	CFRN-N/PIB	Net interest/GDP
1949	3.10	1.72	-1.34	209.9	-2.81	3.61
1950	1.30	1.73	0.42	201.0	0.85	3.48
1951	8.20	1.79	-5.92	181.1	-10.73	3.24
1952	7.00	1.89	-4.78	166.8	-7.97	3.15
1953	1.70	1.98	0.27	155.7	0.43	3.08
1954	1.10	1.87	0.76	149.5	1.14	2.80
1955	4.70	1.98	-2.60	139.6	-3.63	2.76
1956	6.90	1.92	-4.66	129.5	-6.03	2.49
1957	4.00	1.84	-2.08	122.2	-2.54	2.24
1958	3.70	1.96	-1.68	116.8	-1.96	2.29
1959	0.70	1.81	1.10	111.9	1.23	2.02
1960	1.00	2.02	1.01	105.1	1.06	2.13

Year	Inflation	Net nominal rate	TCFRN-N	Debt/GDP	CFRN-N/PIB	Net interest/GDP
1961	3.80	1.92	-1.81	100.2	-1.82	1.92
1962	3.60	1.51	-2.02	97.3	-1.97	1.47
1963	1.50	1.79	0.29	94.1	0.27	1.68
1964	3.60	1.60	-1.93	88.2	-1.70	1.41
1965	5.90	1.52	-4.13	82.3	-3.40	1.25
1966	5.30	1.44	-3.67	78.4	-2.88	1.13
1967	2.90	1.41	-1.45	76.0	-1.10	1.07
1968	4.20	1.47	-2.62	72.2	-1.89	1.06
1969	6.60	1.09	-5.17	68.5	-3.54	0.75
1970	9.60	0.82	-8.01	59.8	-4.79	0.49
1971	8.30	0.65	-7.06	52.9	-3.74	0.34
1972	7.50	0.82	-6.22	49.1	-3.05	0.40
1973	8.80	0.77	-7.38	44.4	-3.28	0.34
1974	16.20	0.71	-13.33	41.5	-5.54	0.30
1975	26.10	1.15	-19.79	35.2	-6.96	0.40
1976	15.50	2.17	-11.54	33.5	-3.87	0.73
1977	13.90	2.81	-9.73	34.7	-3.38	0.98
1978	11.80	3.48	-7.44	34.9	-2.60	1.21
1979	14.40	4.04	-9.05	33.7	-3.05	1.36
1980	20.10	5.01	-12.56	32.1	-4.03	1.61
1981	12.40	5.90	-5.79	33.2	-1.92	1.96
1982	8.00	6.55	-1.34	33.8	-0.45	2.21
1983	5.50	6.64	1.08	33.3	0.36	2.21
1984	5.20	7.45	2.14	34.3	0.74	2.56
1985	5.40	7.33	1.83	34.3	0.63	2.51
1986	4.50	6.94	2.33	34.8	0.81	2.42
1987	5.50	6.58	1.02	34.3	0.35	2.26
1988	6.10	5.99	-0.11	33.0	-0.04	1.97
1989	8.00	5.84	-2.00	30.4	-0.61	1.78

Year	Inflation	Net nominal rate	TCFRN-N	Debt/GDP	CFRN-N/PIB	Net interest/GDP
1990	8.50	6.40	-1.94	27.0	-0.52	1.73
1991	6.70	5.68	-0.96	25.3	-0.24	1.44
1992	3.30	5.91	2.53	25.6	0.65	1.51
1993	3.00	5.97	2.88	28.1	0.81	1.68
1994	1.80	6.03	4.16	32.3	1.34	1.95
1995	2.60	6.30	3.60	36.0	1.30	2.26
1996	4.10	5.91	1.74	38.0	0.66	2.24
1997	0.00	5.43	5.43	40.6	2.20	2.20

Appendix C. Homogeneous ONS series, 1998–2025

All variables in this table come from current ONS series. Debt values are BKPW; interest paid and received are I69W and I69N.

Year	Inflation	Net nominal rate	TCFRN-N	Debt/GDP	CFRN-N/PIB	Net interest/GDP
1998	1.30	5.33	3.98	41.2	1.64	2.20
1999	1.40	4.66	3.22	39.7	1.28	1.85
2000	1.00	4.90	3.86	37.5	1.45	1.84
2001	1.70	4.46	2.71	35.1	0.95	1.56
2002	2.10	4.03	1.89	34.1	0.64	1.37
2003	2.40	3.89	1.46	34.5	0.50	1.34
2004	2.70	4.06	1.32	36.6	0.48	1.49
2005	2.90	4.29	1.35	38.4	0.52	1.65
2006	3.10	4.14	1.00	39.5	0.40	1.63
2007	2.00	4.39	2.35	40.5	0.95	1.78
2008	3.30	3.73	0.42	45.2	0.19	1.69
2009	2.00	2.48	0.47	57.3	0.27	1.42
2010	1.30	3.60	2.27	68.0	1.55	2.45
2011	2.50	3.60	1.08	76.1	0.82	2.74
2012	1.50	2.92	1.40	80.4	1.12	2.35

Year	Inflation	Net nominal rate	TCFRN-N	Debt/GDP	CFRN-N/PIB	Net interest/GDP
2013	2.20	2.94	0.72	82.0	0.59	2.41
2014	1.60	2.71	1.09	82.9	0.91	2.25
2015	0.70	2.25	1.54	84.8	1.30	1.90
2016	1.70	2.44	0.73	84.6	0.61	2.06
2017	1.50	2.74	1.22	83.7	1.02	2.29
2018	2.00	2.46	0.46	83.3	0.38	2.05
2019	2.50	2.13	-0.36	82.7	-0.30	1.76
2020	4.80	1.60	-3.05	96.4	-2.94	1.55
2021	0.70	2.35	1.64	98.8	1.62	2.32
2022	5.70	3.98	-1.63	94.6	-1.54	3.76
2023	6.30	2.61	-3.47	94.6	-3.28	2.47
2024	3.90	2.22	-1.62	96.4	-1.56	2.14
2025	3.60	2.67	-0.89	98.3	-0.88	2.63